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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,538	12/10/2004	Jean-Christophe Dupuy	FR 020701	5675
24737 7590 02/26/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER HOLLIDAY, JAIME MICHELE	
			ART UNIT	PAPER NUMBER
			2617	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,538	DUPUY ET AL.	
	Examiner	Art Unit	
	Jaime M. Holliday	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5, 12 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 17, 2007 has been entered.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because in **figure 1** some items depicted are not clearly labeled and in general the drawing is not clear. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

a) On **page 16 line 12**, replace "a" with --an-- after "For instance," in order to correct a grammatical error.

Appropriate correction is required.

Response to Arguments

4. Applicant's arguments filed January 17, 2007, with regards to claims 10, 13 and 15- 17, have been fully considered but they are not persuasive.

Applicants basically argue that Vilppula et al. fail to disclose "*at least two drivers for said position determination devices.*" Examiner respectfully disagrees; the previous office action clearly states that Vilppula et al. clearly show and disclose positioning methods (**position determination devices**) are connected to the positioning method selection device (PMSD) through an interface **110**. Parameter (or parameters) describing the quality of the positioning data provided by positioning method x is stored in register **115 (driver)**, where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, and the value of the parameter (or parameters) describing the quality actually achieved by the positioning data provided by method x is stored in register **117 (driver)**, when said positioning method returns the positioning data requested by application n to the PMSD.

5. Applicant's arguments with respect to claims 1-4, 11 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claim 7** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claim 7, the phrase "possibly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. **Claims 10, 13 and 15-17** rejected under 35 U.S.C. 102(a) as being anticipated by Vilppula et al. (Pub # U.S. 2002/0019698 A1).

Consider **claim 10**, Vilppula et al. clearly show and disclose positioning methods, reading on the claimed "position determination devices," are connected to the positioning method selection device (PMSD) through an interface **110**. The

interface can comprise, for example, a serial port or the like for the connection of an external positioning method, as well as interfaces for positioning methods integrated in the terminal and, for example, for positioning-related services provided by a mobile communication network, reading on the claimed "mobile equipment having data processing capabilities, comprising: at least two position determination devices each capable of delivering position information of the mobile equipment in a specific format," (paragraph 45), parameter (or parameters) describing the quality of the positioning data provided by positioning method x is stored in register **115**, reading on the claimed "driver," where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, and the value of the parameter (or parameters) describing the quality actually achieved by the positioning data provided by method x is stored in register **117**, reading on the claimed "driver," when said positioning method returns the positioning data requested by application n to the PMSD, reading on the claimed "at least two drivers for said position determination devices, each driver being capable of storing and retrieving at least one parameter associated with the position determination device," (paragraphs 48 and 50), and control means **111** to **113** control the operation of the various functional blocks of the PMSD as well as data transmission between them. The control means comprise a controller **111**, which can be implemented, for example, as a microprocessor or equivalent means for controlling the functions of the PMSD. The control means further comprise a

random access memory **112**; as well as a permanent memory **113** for storing commands required for the control of the PMSD functions. Parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**. The user can define parameters, which represent conditions on the basis of which a positioning method to be used is selected, through user interface **307**. Said conditions can comprise, for instance, the positioning methods the user allows to be used by certain applications at a given time and the order in which the user prefers the positioning methods to be used. The parameters provided by the user are stored (ref. 310) in register **308**, from which the PMSD can retrieve them (ref. 312), reading on the claimed "a location handling unit in communication with said drivers and capable of communicating with an application for providing position information, said location handling unit being capable of selecting a position determination device to be used for obtaining position information based on a context information and on the values of said parameters stored in the drivers wherein each driver is capable of storing and retrieving at least two different parameters and said location handling unit is adapted to receive a context message from said application and a priority of parameters is established as a function of said context message," (paragraphs 46, 48, 57).

Consider **claim 13**, and **as applied to claim 10 above**, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is

stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 15**, and **as applied to claim 10 above**, Vilppula et al. further disclose that the user can define conditions relating to the positioning methods, such as an order of preference and whether the user wishes a certain positioning method to be available for use or removed from use, directly to the PMSD, reading on the claimed "location handling unit comprises a ranking means capable of storing a set of position determination devices with a preference order according to the parameter(s) of higher priority," (paragraph 33).

Consider **claim 16**, and **as applied to claim 15 above**, Vilppula et al. further disclose that the PMSD knows the number of positioning methods available at any given time and their operating state at that time (e.g. in use/not in use) as well as their performance under the prevailing conditions. The highest priority positioning method in the order of preference defined by the user and/or application is examined. The PMSD can monitor the number of available positioning methods and the operating state of each positioning method, or each method can be used in turn and, if a certain positioning method is not available at a particular moment, the next positioning method is selected for use, reading on the claimed "location handling unit comprises an availability checking means for checking whether a preferred position determination device in said set is

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available or not and, in the negative, for checking the next preferred position determination device," (paragraphs 8, 61).

Consider **claim 17**, and **as applied to claim 10 above**, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained positioning results can be selected for combination. A period of validity may also be defined for the positioning data, such that stored positioning data is deleted once its period of validity expires, reading on the claimed "location handling unit is capable of providing to said application position data together with accuracy information relating to said data," (paragraph 55).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Roel-Ng et al. (U.S. Patent # 6,002,936)**, and in further view of **Yabe et al. (Pub # U.S. 2003/0013458 A1)**.

Consider **claim 1**, Vilppula et al. clearly show and disclose a method for position determination in which one or more application (201, 202) requests a positioning method selection device (204), reading on the claimed "mobile equipment," for positioning data. The positioning method selection device provides an application with positioning data using one or more **positioning methods (205 to 209)**, reading on the claimed "**position determination device**," in accordance with settings defined by the application and/or the user, reading on the claimed "method for generating position information in a mobile equipment

provided with at least two position determination devices," (abstract and figure 2), the method comprising the following steps: maintaining a centralized register on at least one positioning property of said one or more positioning method, reading on the claimed "allocating to each position determination device at least one stored parameter value," (paragraph 15), applications defining parameters relating to the positioning data requested, such as a required accuracy or the type and format of the positioning data, reading on the claimed "determining a context information," (paragraph 44), automatically determining the best possible positioning method available for use by the terminal's applications, based on requirements specifying the quality of service (Quality of Positioning, QoP) defined by the user or the application, without having to know the behavior of the available positioning methods under different conditions, reading on the claimed "depending on the context information, choosing a corresponding position determination device selection process based on the value of said at least one parameter for each position determination device," (paragraph 7), and selecting a positioning method for use that fulfils at least one specified condition for selecting a positioning method, reading on the claimed "selecting a position determination device according to the chosen selection process," (paragraph 18), the PMSD knows the number of positioning methods available at any given time and their operating state at that time (e.g. in use/not in use) as well as their performance under the prevailing conditions. The application (or applications) form the parameter value or values indicating the quality of the positioning required, and

send it (them) to the PMSD, whereupon the PMSD is able to select the most suitable positioning method to provide the positioning data on the basis of the received parameter (or parameters) and provides the positioning data to the application (or applications) in the correct format, i.e. in a format requested by the application, reading on the claimed "identifying a position data format as requested by an application, determining whether a currently active position determination device supplies data according to this format," (paragraphs 8, 31).

However, Vilppula et al. do not specifically disclose that the positioning methods are activated upon selection.

In the same field of endeavor, Roel-Ng et al. clearly show and disclose telecommunications method for allowing a cellular network to determine the optimum positioning method, reading on the claimed "method for generating position information," (abstract). When a Requesting Application (RA) **380** sends a positioning request for a particular mobile station (MS) **300** to a Mobile Positioning Center (MPC) **370**, the RA can also include quality of service information, such as data rate and/or reliability of the positioning information returned by the cellular network (MPC) performing the positioning, reading on the claimed "context information," (col. 4 lines 41-49, figure 3). When a positioning request comes in to the MPC, it must then determine the optimum positioning method, reading on the claimed "position determination device," based upon the available network-based and terminal-based positioning methods and the quality of service requested by the RA, reading on the claimed "depending on the

context information, choosing a corresponding position determination device selection process based on the value of said at least one parameter for each position determination device,” (col. 5 lines 33-38). Once the positioning method has been chosen, the positioning request, along with the positioning method, is sent to the serving MSC/VLR **350**, which then forwards the positioning requests to a serving Base Station Controller (BSC) **340**. If the MS is idle mode, the serving MSC/VLR must page the MS and setup a call prior to forwarding the request to the BSC, reading on the claimed “activating said selected position determination device,” (col. 5 lines 38-46). If the positioning method is a terminal-based positioning method, the BSC sends the positioning request to the MS collects the positioning data, and if the MS has calculation abilities, the MS determines its location, reading on the claimed “method for generating position information in a mobile equipment,” (col. 5 lines 56-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to page or setup a call to the mobile station in order to activate the terminal-based positioning method as taught by Roel-Ng et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

However, Vilppula et al., as modified by Roel-Ng, do not specifically disclose that if the position method does not use the requested format, the position data is converted.

In the same field of endeavor, Yabe et al. clearly show and disclose a Subscriber information management unit GWS2 stores and manages information relating to a subscriber of a packet communication service using mobile packet communication network MPN. System control unit GWS1, upon receiving a GET request from mobile station MS in mobile packet communication network MPN, carries out a search for a URL included in the GET request (paragraph 43). In the case that a GET request of HTTP transmitted from mobile station MS includes a URL of each submenu item of "location-related information service", data distribution management unit GWS3 extracts the base station ID which base station BS adds to the GET request. Data distribution management unit GWS3 extracts location-related information including the area name read out from location-related information database GWS4 and distributes the information to mobile station MS. A data format of location-related information to be stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data. Thus, in the case that the data format of location-related information is not in an HTML format, a conversion of the data format is performed by gateway server GWS, reading on the claimed "converting the position data supplied by the currently active position determination device into the requested position data format," (paragraph 50 and 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for

the mobile station as taught by Yabe et al. in the method Vilppula et al., as modified by Roel-Ng et al., in order to obtain location-related information.

Consider **claim 2**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., disclose the claimed invention **as applied to claim 1 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**, where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, reading on the claimed "at least two stored parameter values are allocated to each position determination device," (paragraph 48).

Consider **claim 3**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., disclose the claimed invention **as applied to claim 2 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 4**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., disclose the claimed invention **as applied to claim 3 above**, and in addition, Vilppula et al. further disclose that a user can define parameters relating to position determination directly to the PMSD through the user interface instead of giving definitions separately to each application. The

user can define, for example, the accuracy with which applications receive positioning data or which positioning method the user prefers to use as the first-choice positioning method, reading on the claimed "ranking the position determination devices depending on the chosen selection process," (paragraph 56) and the PMSD makes use of its monitoring capability to select the best possible positioning method for each of the sequence of requests, reading on the claimed "selecting an available position determination device of best rank," (paragraph 53).

15. **Claims 6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** and **Roel-Ng et al. (U.S. Patent # 6,002,936)** in view of **Yabe et al. (Pub # U.S. 2003/0013458 A1)**, and in further view of **Ludwig (U.S. Patent # 6,256,498 B1)**.

Consider **claim 6**, and as applied to **claim 1** above, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., clearly show and disclose the claimed invention except that the positioning methods include physical position data and logic position data.

In the same field of endeavor, Ludwig clearly shows and discloses a mobile station (MS) for a digital cellular communication network (GSM) supporting WWW services comprises a mobile device interface adapted to establish a connection to a mobile device (MD) being connected to the mobile station, to receive a request for the location specific data from the mobile device

and to transfer the location specific data to the mobile device. The transfer of location specific data to a server being linked to the mobile device via a global data bearer services network allows for the provision of location dependent WWW services at the mobile device (abstract). Cell IDs or base station identity codes received and selected by the mobile station MS are transferred as location data to the mobile device on request therefrom. A WWW application running on the mobile device MD includes all cell IDs or base station identity codes into an appropriate request written in hypertext transmission protocol HTTP. This HTTP request is then transferred to a WWW server (col. 8 lines 7-15). The actual estimation of the geometrical location necessary to provide location dependent WWW services is carried out within the WWW server. The mapping table 18 comprises a correspondence between *cell IDs or base station identity codes BSCI (logic position data)* and exact *geographical positions in terms of latitude and longitude (physical position data)* of respective cells and base station subsystems. Therefore, once the cell IDs or base station identity codes BSCI are available within the WWW server, the geometrical location of the mobile station MS is calculated, reading on the claimed "position data include physical position data and logic position data," (col. 8 lines 42-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to correspond cell IDs and geographical positions as taught by Ludwig in the method of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., in order to obtain location-related information.

Consider **claim 7**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al. and Ludwig, disclose the claimed invention **as applied to claim 6 above**, and in addition, Vilppula et al. further disclose that the conditions set by the user relating to selection of a positioning method can also comprise the desired accuracy of the requested positioning data (e.g. longitudes, latitudes, distance from a given point), reading on the claimed "physical position data include Cartesian coordinates and longitude/latitude," (paragraph 9).

Consider **claim 8**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al. and Ludwig, disclose the claimed invention **as applied to claim 6 above**, and in addition, Ludwig further discloses that a WWW application running on the mobile device MD includes all cell IDs or base station identity codes into an appropriate request written in hypertext transmission protocol HTTP, reading on the claimed "logic position data include radiofrequency beacon identifiers," (col. 8 lines 14-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include cell IDs as taught by Ludwig in the method of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al., in order to obtain location-related information.

Consider **claim 9**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Yabe et al. and Ludwig, disclose the claimed invention **as applied to claim 8 above**, and in addition, Ludwig further discloses that the mapping table **18** comprises a correspondence between *cell IDs or base station identity codes*

BSCI (logic position data) and exact geographical positions in terms of latitude and longitude (physical position data) of respective cells and base station sub-systems. Therefore, once the cell IDs or base station identity codes BSCI are available within the WWW server, the geometrical location of the mobile station MS is calculated, reading on the claimed "conversion step comprises reading from a table physical coordinates corresponding to at least one beacon identifier," (col. 8 lines 42-60).

16. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Roel-Ng et al. (U.S. Patent # 6,002,936)**.

Consider **claim 11**, and **as applied to claim 10 above**, Vilppula et al. clearly show and disclose the claimed invention except that the positioning methods, reading on the claimed "position determination devices," are cell-based, satellite-based and beacon-based.

In the same field of endeavor, Roel-Ng et al. clearly show and disclose telecommunications method for allowing a cellular network to determine the optimum positioning method, reading on the claimed "method for generating position information," (abstract). The Mobile Positioning Center (MPC) must choose the optimum positioning method available that can be network-based, e.g. Timing Advance method, Time of Arrival method, or Angle of Arrival method, or terminal based, e.g., Global Positioning System method, Observed Time

Difference method, or Enhanced OTD method, reading on the claimed "position determination devices are selected from the group comprising cell-based positioning devices, satellite-based positioning devices and beacon-based positioning devices," (col. 4 lines 50-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use network-based or terminal-based positioning methods as taught by Roel-Ng et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

17. **Claims 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Yabe et al. (Pub # U.S. 2003/0013458 A1)**.

Consider **claim 18**, and **as applied to claim 10**, Vilppula et al. clearly show and disclose the claimed invention except that data is converted.

In the same field of endeavor, Yabe et al. clearly show and disclose a Subscriber information management unit GWS2 stores and manages information relating to a subscriber of a packet communication service using mobile packet communication network MPN. System control unit GWS1, upon receiving a GET request from mobile station MS in mobile packet communication network MPN, carries out a search for a URL included in the GET request (paragraph 43). In the case that a GET request of HTTP transmitted from mobile station MS includes a URL of each submenu item of "location-related information service",

data distribution management unit GWS3 extracts the base station ID which base station BS adds to the GET request. Data distribution management unit GWS3 extracts location-related information including the area name read out from location-related information database GWS4 and distributes the information to mobile station MS. A data format of location-related information to be stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data. Thus, in the case that the data format of location-related information is not in an HTML format, a conversion of the data format is performed by gateway server GWS, reading on the claimed "position data conversion unit in communication with said location handling unit," (paragraph 50 and 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the mobile station as taught by Yabe et al. in the method Vilppula et al., in order to obtain location-related information.

Consider **claim 19**, Vilppula et al., as modified by Yabe et al., clearly show and disclose the claimed invention **as applied to claim 18 above**, and in addition, Yabe et al. further disclose that a data format of location-related information to be stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data, reading on the claimed "location handling unit is

responsive to data format requirement information provided by the application for requesting conversion by said position data conversion unit," (paragraph 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the mobile station as taught by Yabe et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

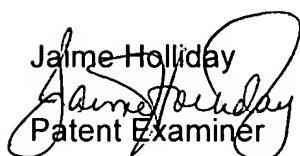
Consider **claim 20**, Vilppula et al., as modified by Yabe et al., clearly show and disclose the claimed invention **as applied to claim 19 above**, and in addition, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained positioning results can be selected for combination. A period of validity may also be defined for the positioning data, such that stored positioning data is deleted once its period of validity expires, reading on the claimed "position history unit capable of storing a plurality of position data together with time/date information," (paragraph 55).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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